User Profile Manager Technical FAQ

GENERAL QUESTIONS

How does User Profile Manager work?

During logon the User Profile Manager service merges the user settings into the mandatory profile and on logoff it merges back only changed user settings with the centrally stored user settings. User Profile Manager is able to ensure the net changes are tracked correctly and last write does not necessarily win if it does not have the latest change.

Are any changes required with profiles or on the file share?

It is recommended to use Mandatory profiles - nothing special other than the normal process of creating and assigning the profiles. The users must have write access to their centrally stored profile directory. It is best to use the user's home directory since permissions are already set correctly.

Does last write win?

No. User Profile Manager is able to detect valid changes and ensure that the latest change is not overwritten because another profile without the change is unloaded last.

How does User Profile Manager improve logon/logoff performance?

User Profile Manager is capable of reducing the logon time by using folder compression. This significantly reduces logon/logoff times for folders with many small files (e.g. favorites, cookies).

Also, User Profile Manager enables administrators to exclude (and include) certain files and folders in order to prevent extraneous settings from needlessly being copied with the profile. For example, some applications may create folders and files that account for tens or hundreds of megabytes, which are really not required. By excluding these files it minimizes the extra data being stored in a profile. Alternatively, you could elect to only include specific files and folders thus keeping to a minimum the amount of profile data being managed within the user's profile.

How does User Profile Manager address profile bloat?

As described in the previous question, User Profile Manager enables administrators to exclude (and include) certain files and folders in order to prevent extraneous settings from needlessly being copied with the profile. For example, some applications may create folders and files in the 'Application Data' profile folder that account for tens or hundreds of megabytes, which are really not required. By excluding these files and folders it minimizes the extra data being stored in a profile.

Is profile corruption reduced or managed better?

Often profile corruption occurs from an application improperly creating or writing settings. Less likely to occur is corruption as the result of a network connectivity error – which in most cases the OS manages and recovers properly. Corruption exposure of this nature is reduced by minimizing the amount of data that is copied and also limited the extent of damage to specific files if corruption occurs.

USER'S PROFILE AND SETTINGS

Which profiles can be used with User Profile Manager?

Mandatory is recommended.

How are existing Roaming Profiles migrated?

A migration tool included in the Technology Preview helps you to convert your roaming profiles to User Profile Manager Profiles.

How do I set up a mandatory profile?

Details for creating a mandatory profile are outlined in the Administrator's Guide. Additionally Citrix has posted a technical video, called "User Environment – profiles and group policy," that outlines the steps for creating profiles. The video is located here: http://www.citrix.com/techvideos. The relevant section is located at 22 minutes and 50 seconds.

Where are the profile settings and files stored for the user?

These settings (registry items as a DAT file and profile related files in the folder "spBackup") are stored in the user store by default in the Windows folder of each user's home directory. The location may be any UNC path assigned by administrator.

How does folder redirection work with User Profile Manager?

Folder Redirection is recognized and User Profile Manager will not sync those folders and files.

How does the files and folder synchronization functionality work?

Files and folders inside the profile that should be saved from a session need to be configured for either synchronization or archiving, described below:

Archiving

If a change in an archived directory is detected during a session, the directory will be zipped and copied to the user store during logoff. During logon, the zip archives will be expanded to the local profile.

Synchronization

During a session, User Profile Manager monitors files/folders configured for synchronization. Any changes are recorded internally. During logoff, a sophisticated algorithm performs only the required actions over the network.

Examples: If a file/folder was renamed during a session, it will not be copied again during logoff. Instead, the file or folder on the network will simply be renamed.

If the attributes of a file/folder were changed, only the changed attributes are set during logoff.

If the content of a file was changed, the file will be copied during logoff.

How are the changes to files and folders tracked during the user's session?

User Profile Manager monitors the NTFS change journal. In order to be able to resolve relative file names to the absolute paths the file system has to be scanned once, which takes typically 10-20 seconds. In order to avoid scanning during every subsequent startup, a cache file is used. It is called UserProfileManager.db and is located in the installation directory.

It's possible that there are environments where the system is not allowed to write to this directory or the admin does not want software to write to this location and therefore you can change the location by group policy.

SERVICE INSTALLATION AND CONFIGURATION

Where should the User Profile Manager service be installed?

The MSI package contains the service and supporting DLLs. This package should be installed on any machine that will process the user's logon.

Which OS and profile version are supported?

Currently Windows XP, Vista, Windows Server 2003 and Windows Server 2008 are supported. Windows XP and Windows Server 2003 are v1 profiles while Vista and Windows Server 2008 are v2 profiles (profile folder names are usually ended in .v2). The operating system does not allow these profile versions to be shared across platforms.

How does the service retrieve its settings?

The service checks the GPO first, then the INI within the same folder (where the service was installed) and then uses internal defaults. The INI file exists in the same directory as the service executable (default location is \Program Files\Citrix\User Profile Manager\). Any list setting that is not configured via group policy will be looked up in the INI file (e.g. if it is 'Not Configured' in GPO and there is an entry in the INI, it will use the INI. If neither the GPO nor INI exists, the service will by default track the registry hive HKEY_CURRENT_USER).

When will the service use the INI setting versus the GPO?

Using the User Profile Manager group policy template, you can specify the exact behavior of User Profile Manager and adapt it to your environment. The INI files settings will be used for any list setting not explicitly set (e.g. Enabled or Disabled) in the GPO. When using group policy to configure User Profile Manager, it is recommended to rename the INI files (e.g. UPMPolicyDefaults_V1Profile_en.OLD) to ensure the INI file settings are not unintentionally applied.

The following settings will be read from the INI file if not configured via policy:

- Processed groups
- Registry: Inclusion list
- Registry: Exclusion list
- File System: Excluded files
- File System: Excluded folders
- File System: Included files to synchronize
- File System: Included folders to synchronize
- File System: Included folders to archive (ZIP)

What are the default settings?

By default, if no policy settings are configured, the configuration is read from the INI file that corresponds to the local system's language and version.

Example: UPMPolicyDefaults_V1Profile_en.ini for an English XP/Server 2003 system.

The INI file contains default settings that should work in most environments with none or only minimal modifications. User Profile Manager will save / restore the user's registry settings and files/folders inside the profile. Some files/folders/registry keys that typically do not contain relevant data are excluded by default.

If policy settings are not configured and an INI file is not present, User Profile Manager will synchronize anything from the registry and nothing from the file system.

Is the installed service able to be cloned as part of a base image?

While this has not been formally tested there is nothing inherent that would prevent this from working. The service is generic and will read its configuration information from GPOs or INI files.